

Docket No.: 2003P16149

MAIL STOP: APPEAL BRIEF-PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

Applic. No.	:	10/578,523	Confirmation No.:	5140
Inventor	:	Joachim Gericke, et al.		
Filed	:	May 8, 2006		
Title	:	Switching Device		
TC/A.U.	:	2832		
Examiner	:	Marina Fishman		
Customer No.	:	24131		

Hon. Commissioner for Patents

Alexandria, VA 22313-1450

BRIEF ON APPEAL

Sir:

This is an appeal from the final rejection in the Office action dated May 23, 2008, finally rejecting claims 9 - 15, 17 and 18.

Appellants submit this *Brief on Appeal* including payment in the amount of \$510.00 to cover the fee for filing the *Brief on Appeal*.

Real Party in Interest:

This application is assigned to Siemens Aktiengesellschaft of München, Germany.

The assignment will be submitted for recordation upon the termination of this appeal.

Related Appeals and Interferences:

No related appeals or interference proceedings are currently pending which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Status of Claims:

Claims 9 - 15, 17 and 18 are rejected and are under appeal. Claims 1 - 8 and 16 are canceled.

Status of Amendments:

No claims were amended after the final Office action.

Summary of the Claimed Subject Matter:

The subject matter of each independent claim is described in the specification of the instant application. Examples explaining the subject matter defined in each of the independent claims, referring to the specification by page and line numbers, and to the drawings, are given below.

Independent claim 1 reads as follows:

A switching device [page 7, lines 25-26; 1, Fig. 1], comprising:

a first [page 7, lines 28-29; 2, Fig. 1] and a second arcing contact piece [page 7, lines 28-29; 3, Fig. 1], lying axially opposite one another [page 8, lines 2-3; 2, 3, Fig. 1];

a first [page 8, lines 3-6; 5, Fig. 1] and a second rated current contact piece [page 8, lines 6-8; 6, Fig. 1], disposed coaxially with respect to said arcing contact pieces [page 8, lines 2-8; 2, 3, Fig. 1], at least one [page 8, lines 25-26; 6, Fig. 1] of said rated current contact pieces having a hollow-cylindrical basic body [page 8, lines 25-26; 6a, Fig. 1] with a front [page 8, line 27; Fig. 1] at an end facing [page 8, lines 28-31] a switching path of the switching device [page 7, lines 25-26; 1, Fig. 1];

an arc-resistant material [page 8, lines 26-28; 9, Fig.1] covering said front [page 8, line 27; Fig. 1], said arc-resistant material [page 8, lines 26-28; 9, Fig.1] having an electroplated surface [page 9, lines 15-16; 9, Fig.1]; and

contact-making points [page 8, lines 8-9, 7, Fig. 1] disposed between said first [page 8, lines 3-6; 5, Fig. 1] and second [page 8, lines 6-8; 6, Fig. 1] rated current contact pieces and lying axially in a region [Fig. 1] of said electroplated surface [page 9, lines 15-16; 9, Fig.1] in a switched-on state [page 8, lines 8-13] of the switching device [page 7, lines 25-26; 1, Fig. 1];

said electroplated surface [page 9, lines 15-16; 9, Fig.1] making initial contact with said contact-making points [page 8, lines 8-9, 7, Fig. 1] and making contact with

said contact-making points [page 8, lines 8-9, 7, Fig. 1] in the switched-on state [page 8, lines 8-13] of the switching device [page 7, lines 25-26; 1, Fig. 1] and wherein said arc-resistant material [page 8, lines 26-28; 9, Fig.1] is made of a plurality of different metals {page 3, lines 17-21}.

Grounds of Rejection to be Reviewed on Appeal

1. Whether or not claims 9 - 15, 17 and 18 are obvious over Schoenemann et al. (US 6,211,478) in view of Tremblay (US 2,504,906) under 35 U.S.C. § 103.

Argument:

Claims 9 - 15, 17 and 18 are not obvious over Schoenemann et al. in view of Tremblay

Appellants first discuss the way in which the teaching of Schoenemann et al. must be compared with the claimed invention in order to satisfy certain claimed limitations, and then discuss why the comparison fails to meet other claimed limitations.

The switching device defined by claim 9 includes, inter alia: a rated current contact piece having a hollow-cylindrical basic body with a front at an end facing a switching path of the switching device; and an arc-resistant material covering said front, said arc-resistant material having an electroplated surface.

The upper fixed rated-current contact 6 of Schoenemann et al. is designed as a contact ring 34 (See column 5, lines 23-27 and Figs. 3b and 3a), and could be considered to be hollow and cylindrical. The power switch fingers 33 do not have a hollow and cylindrical body (See Figs. 3a, 3b, and 3c). Therefore, the upper fixed rated-current contact 6, which is designed as a contact ring 34, of Schoenemann et al. must be compared to the claimed rated current contact piece having a hollow-cylindrical basic body with a front at an end facing a switching path of the switching device; and an arc-resistant material covering said front, said arc-resistant material having an electroplated surface. The upper fixed rated-current contact 6, which is designed as a contact ring 34, has a protective layer 37 (column 5, lines 33-35). The protective layer 37 of the contact ring 34 of Schoenemann et al. (as modified by Tremblay according to the allegation of the Examiner) must be equated with the claimed electroplated surface.

Now, appellants point out that even if one were to accept the allegation of the Examiner that Tremblay suggests providing the arc-resistant material of Schoenemann et al. with an electroplated surface, the invention as defined by claim 9 would not have been obtained.

Keep in mind that claim 9 defines an arc-resistant material covering said front, said arc-resistant material having an electroplated surface (the front is at an end of the hollow-cylindrical basic body that is facing a switching path of the switching device).

Now consider the fact that claim 9 includes the following limitations: "said electroplated surface making initial contact with said contact-making points and

making contact with said contact-making points in the switched-on state of the switching device”.

When the protective layer 37 of the contact ring 34 of Schoenemann et al. is used to satisfy the claimed electroplated surface, and the power-switch fingers 33 of Schoenemann et al. are used to satisfy the claimed contact-making points, the limitations of claim 9 that have been copied above are not satisfied. The protective layer 37 of the contact ring 34 of Schoenemann et al. does make initial contact with a power switch finger 33, however the protective layer 37 of the contact ring 34 does not make contact with the power switch finger 33 in the switched-on state of the switching device.

In the switched-on state, the pressure spring 30 has been compressed and the protective layer 36 of the power switch finger 33 has moved past the oblique surface of the contact ring 34, which has the protective layer 37. In the switched-on state, the protective layer 36 of the power switch finger 33 makes contact with the silver-coated contact zone 38 of the contact ring 34. It is the silver-coated contact zone 38 of the contact ring 34 that makes contact with the power switch finger 33 in the switched-on state of the switching device. The silver-coated contact zone 38 does not have a protective or arc resistant material. This can be clearly ascertained by reviewing column 5, lines 23-52 and Fig. 3b.

Clearly, the prior art teaches one region, namely, the protective layer 37, for making initial contact with the power switch finger 33, and another region, namely the

silver-coated contact zone 38, for making contact with the power switch finger 33 in the switched on state.

Therefore, even if Tremblay did suggest providing the arc-resistant material of Schoenemann et al. with an electroplated surface, the following limitations of claim 9 would still not have been suggested by the cited prior art:

an arc-resistant material covering said front, said arc-resistant material having an electroplated surface (the front is at an end of the hollow-cylindrical basic body that is facing a switching path of the switching device); and

said electroplated surface making initial contact with said contact-making points and making contact with said contact-making points in the switched-on state of the switching device.

Further, appellants point out that claim 9 specifies that said arc-resistant material is made of a plurality of different metals, and that the arc resistant material has an electroplated surface. Tremblay only teaches using a pure electroplated metal layer (silver) as an arc-resistant material. If one were to modify the teaching of Schoenemann et al. based on the teaching of Tremblay, one would not have obtained an arc-resistant material, with an electroplated surface, that is made of a plurality of different metals.

Tremblay teaches subjecting a composite member of a plurality of metals to an alkali metal nitride in order to obtain a pure metal layer 15 (column 4, lines 22-33). Tremblay teaches an example in which the pure metal layer 15 is silver (column 4, lines 55-57). Tremblay teaches that the pure metal layer 15 (silver in the example) is subjected to electroplating in a silver bath to deposit a silver plate 16 (column 4, lines 58-60). Importantly, Tremblay teaches that the electroplated silver layer 16 serves as an arc-resistant material (column 4, lines 64-70). Tremblay does not teach or suggest that any other electroplated material will have arc-resistant properties.

Tremblay specifically teaches removing refractory metals to obtain a pure good conducting metal that will facilitate electroplating at the surface thereof (column 1, lines 48-53), and importantly Tremblay only teaches electroplating a pure metal (silver) layer to serve as an arc-resistant material. Therefore, the only suggestion that might have been provided to one of ordinary skill in the art would have been to use an electroplated silver layer 16 as an arc-resistant material in the switching device of Schoenemann et al.

In contrast to the invention as defined by claim 9, the prior art does not suggest an arc-resistant material that has an electroplated surface and that is made of a plurality of different metals.

The honorable Board is therefore respectfully urged to reverse the final rejection of the Primary Examiner.

Any fees due should be charged to Deposit Account No. 12-1099 of Lerner
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Respectfully submitted,

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Claims Appendix:

9. A switching device, comprising:

a first and a second arcing contact piece, lying axially opposite one another;

a first and a second rated current contact piece, disposed coaxially with respect to said arcing contact pieces, at least one of said rated current contact pieces having a hollow-cylindrical basic body with a front at an end facing a switching path of the switching device;

an arc-resistant material covering said front, said arc-resistant material having an electroplated surface; and

contact-making points disposed between said first and second rated current contact pieces and lying axially in a region of said electroplated surface in a switched-on state of the switching device;

said electroplated surface making initial contact with said contact-making points and making contact with said contact-making points in the switched-on state of the switching device and

wherein said arc-resistant material is made of a plurality of different metals.

10. The switching device according to claim 9, wherein said arc-resistant material is fixed to said hollow-cylindrical basic body in a form of a ring, so as to cover said front of said hollow-cylindrical basic body.

11. The switching device according to claim 10, wherein said ring has a smaller radial wall thickness at a further end facing away from said switching path than at said end facing said switching path.

12. The switching device according to claim 10, further comprising a bolt connection, said ring being pressed against said hollow-cylindrical basic body in a axial direction by said bolt connection.

13. The switching device according to claim 9,

further comprising an insulating body;

further comprising a pressure element; and

wherein said hollow-cylindrical basic body has a radial projection, against which said insulating body, is pressed axially by said pressure element.

14. The switching device according to claim 13, wherein said hollow-cylindrical basic body has an inner casing side and a reduced outer diameter at said end facing said switching path, said radial projection is disposed on said inner casing side in a region of said reduced outer diameter.

15. The switching device according to claim 11, wherein said ring has an enlarged radial wall thickness region and fixing devices in a region of said enlarged radial wall thickness region.

17. The switching device according to claim 13, wherein said insulating body is an insulating material nozzle.

18. The switching device according to claim 13, wherein said plurality of different metals of said arc-resistant material form a surface, and said electroplated surface is electroplated directly on said surface formed by said plurality of different metals of said arc-resistant material.

Evidence Appendix:

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or any other evidence has been entered by the Examiner and relied upon by appellant in the appeal.

Related Proceedings Appendix:

No prior or pending appeals, interferences or judicial proceedings are in existence which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this appeal. Accordingly, no copies of decisions rendered by a court or the Board are available.